

# energized

Volume 6

THE MONTHLY NEWSLETTER FOR ENERGY MANAGERS AND PUBLIC AFFAIRS OFFICERS

Issue 10

## Message to Energy Managers:

This issue of *energized* might seem like others that preceded it. But it is not.

This is our first publication following the tragic events of 11 September. We are with you in mourning losses so many of us felt. But as the President and others have pointed out, we as a people are gifted with resiliency.

With this issue, we who manage energy for DON express our resilience in celebrating ingenuity, commitment, and passion, proving again that as Americans, and as Navy and Marine Corps energy managers, we relish the opportunity to show our mettle.

This month, eight DON activities are honored in this way with annual SECNAV energy awards. The names and details appear here. They represent some of DON's best and brightest. We hope you'll join us in congratulating them.

We also celebrate ingenuity this month in Jacksonville, Florida, where the Navy is turning heads with its commitment to alternative-fuel vehicles, and in Central Pennsylvania, where NSA Mechanicsburg is proving how even in a small-town setting, you can be a world leader in energy efficiency.

We hope you enjoy reading about them.

Sincerely,



William F. Tayler  
Manager Utilities/Energy

## Conservation Kudos: SECNAV Energy Winners Announced

Eight activities have risen to cream-at-the-top status in Department of Navy energy conservation for 2001. The eight are being honored in October in ceremonies at the U.S. Naval Memorial, in Washington, DC. The winners were chosen from a field of scores of nominees representing ships, squadrons, bases, and other DON facilities that recorded impressive energy conservation achievements in FY00.

The winners, their awards category and programs in a nutshell:

### NAVSEA Crane Division, Naval Surface Warfare Center-Large Shore Activity.

Through a combination of programs, NSWC Crane last year reduced its energy consumption by more than 8%. Its \$2.8 million in energy projects save about \$641 thousand a year, reduce energy consumption by almost 28 million BTUs a year, and save almost 108 million gallons of water each year.

**Naval Security Group Activity Sugar Grove, West Virginia-Small Shore Activity.** NSGA Sugar Grove reduced its energy consumption 22% in FY00. It upgraded to high-tech lighting throughout the Command, including indoor high-tech fluorescent and compact fluores-

cent lighting and outdoor high-pressure sodium lighting; occupancy-sensing light-switches; reducing maintenance and electric demand, and saving the base about \$32 thousand a year.

### Marine Corps Recruit Depot Parris Island, South Carolina-Marine Corps Large Shore Activity.

Marine Corps Recruit Depot/ Eastern Recruiting Region Parris Island reduced its energy consumption 22.7% in FY99 compared to the 1985 baseline. The Depot implemented a program it calls "Cheaper By The Dozen," a portfolio of a dozen ongoing conservation projects marked by short payback, substantial energy savings, or potential for direct cost avoidance.

### Marine Corps Air Station Iwakuni, Japan-Marine Corps Small Shore Activity.

MCAS Iwakuni revised its Station Energy Order, established a strong Energy Conservation Planning Group and an Energy Monitor program, resulting in 7.6% less energy consumed per square foot and \$1.2 million in avoided annual electricity costs. They renegotiated their electric rate structure, imple-



Last Year's SECNAV Winners

*SECNAV Winners, continued on page 2*

DON Energy Awareness Website: Access the tools on the Navy Energy website for ideas, planning tips, and tools. Set your browser to <<http://energy.navy.mil>> and scroll down the left-hand column to the Awareness pick.

# Navy Opens Alternative Fuel Service Stations

Clean air is important, and the Navy in Jacksonville, Fla., is committed to making the air cleaner, in addition to conserving energy and resources.

To that end, Navy officials together with representatives from Tampa-based TECO Energy Inc./Peoples Gas Systems dedicated two new alternative fuel service stations at a ribbon cutting ceremony this summer at Naval Air Station Jacksonville (NAS).

According to the Environmental Protection Agency (EPA), pollution in Jacksonville is on the decline, 3% from 1998 to 1999. At NAS Jacksonville and Naval Station Mayport, the use of alternative fueled vehicles (AFVs) is one way energy managers at Public Works Center (PWC) Jacksonville help contribute to cleaner air quality by reducing pollutants and greenhouse gases.

Acquisition of AFVs within the Department of Defense is mandated by federal legislation and executive order. Under these mandates, the Navy is required to plan, pro-

gram, purchase and utilize alternative fueled vehicles and establish access to refueling facilities.

The applicable acts and orders accomplish two main goals. AFVs reduce dependence and demand for petroleum-based fuels including imported oil, thus increasing overall national security; and they help reduce air pollution.

Since 1991, Public Works Center Jacksonville and TECO/Peoples Gas partnered to supply the Base AFV fleet with compressed natural gas (CNG), which resulted in a cleaner mode of transportation.

Natural gas engines are among the cleanest internal combustion engines ever certified by the EPA. CNG-powered vehicles emit 85% less nitrogen oxide, 70% less reactive hydrocarbons, and 74% less carbon monoxide than similar gasoline-powered vehicles. It is estimated that conversion to CNG can avoid more than 3 tons of petroleum hydrocarbon emissions over the life of the vehicle.

**Alternative Fuel**, continued on page 3



*Clean Air Ribbon-Cutting in June*

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## SECNAV Winners, from page 1

mented a peak shaving program, and initiated a successful, detailed building energy audit program.

**USS BOXER (LHD-4)-Large Ship Category.** USS BOXER reduced its fuel consumption by nearly 15,000 barrels in FY00 compared to 1995, saving more than \$372 thousand. USS BOXER consumed only 54% of its allotted fuel through its dedication to fuel conservation, developing three engineering plant configurations designed to optimize fuel efficiency based on operational requirements and transit speeds.

**USS TAYLOR (FFG-50)-Small Ship Category.** USS TAYLOR reduced its fuel consumption in FY00 by more than four thousand barrels, saving \$107 thousand. Total projected savings through 2010 are \$2.5 million. The ship implemented close conservation-oriented coordination between Navigation and Engineering departments to devise the most fuel and cost-effective transits.

**Fleet Logistics Support Squadron Fifty-Seven (VR-57)-Squadron Category.** Through careful planning, heightened awareness, and dedicated commitment to effective energy management and conservation, VR-57 saved more than \$830,000 in energy costs in the last fiscal year, and 23 % lower fuel consumption than in 1995.

**Naval Undersea Warfare Center Division Keyport, Washington.** NUWC Keyport reduced its energy consumption 8.7% in 2000—down 30% compared to 1985. Keyport initiated a host of programs in FY00—including spot market natural gas contracting through the Defense Energy Support Center, saving \$48 thousand in the course of the fiscal year.

More than 100 winners and dignitaries were expected to attend the awards ceremonies (18 Oct.). The awards follow by a day the presentation of Federal Energy and Water Conservation Program (FEMP) Awards to outstanding Federal energy and water conservation programs. DON activities provided the day's high notes, taking 16 of the 44 awards made to Federal entities of all kinds worldwide (article in last months' *energized*).

"This outcome is emblematic of the leadership ability of the Navy and Marine Corps," said Mr. Duncan Holaday, Department of Navy Deputy Assistant Secretary (Installations and Facilities). We are proud of the job our energy managers continue to do on behalf of the Department, taxpayers, Congress, and the Commander-in-Chief."

*energized* will feature information on SECNAV and FEMP award-winning programs in coming months.

# Naval Support Activity Mechanicsburg

Just west of Harrisburg, in the sleepy countryside of Central Pennsylvania, the town of Mechanicsburg is, like so many small Pennsylvania towns and cities, little known or noticed. What really keeps it anchored to the map is DON presence. It is the home of Naval Support Activity (NSA) Mechanicsburg.

NSA Mechanicsburg is the working home of more than 5,000 civilian and military personnel. Its mission is to coordinate and provide base support services to Fleet units, hosted commands and other Naval activities as directed by the Commander-In-Chief of the Central Atlantic Fleet (CINCLANTFLT).

It is also, like other DON activities, one of the area's major consumers of electricity. And in response to Navy's call to energy conservation, the NSA Mechanicsburg energy team recently engineered it into the setting of a major, successful, lighting upgrade project.

The project reduced electric demand by 2.1 megawatts and consumption by 10,500,000 kilowatts/yr., producing first-year savings of \$1.1 million.

Much of the retrofit involved warehouse operations. Surveys revealed that entire warehouses were lighted even when activity was low and that lights were on in many buildings even when no one was around. The energy team at Mechanicsburg selected equipment compatible with occupancy sensors and designed specifically for warehouse and storage operations. Installing these high-efficiency lights improved illumination and lighting quality, and the sensors



*Aerial View of NSA Mechanicsburg*

ensure that lights stay on only when needed.

The lighting project was conducted in two phases. The first concentrated on T8/electronic ballast retrofits in administrative areas but included several warehouses to demonstrate the effectiveness of fluorescent fixtures combined with sensors to replace old HID fixtures there. The second phase revamped lighting at the warehouses.

All told, the project invested \$6.2 million in lighting upgrades, resulting in 13% lower electric demand and electric cost savings of \$615,000 per year. Combined with maintenance savings of \$300,000 per year, the first year savings is \$1.1 million and payback is expected in less than 6 years.

Environmental benefits come as a bonus. NSA Mechanicsburg base is served by PPL Utilities and its coal-fired generation resources. The avoided kilowatt-hours resulting from the project result in lower SO<sub>2</sub>, NO<sub>x</sub> and CO<sub>2</sub> emissions in the region.

The project also had worthwhile communications benefits. The project resulted in interaction between the Navy, the PPL project team, and virtually all the Base tenants. Meetings and information-sharing with tenants, through fact sheets and other means, gained understanding of the project's goals and scope, and most importantly, buy-in.

That buy-in aided the process, and virtually assures cooperation in future energy upgrade projects. It also serves, for anyone who's paid attention, as an example of how a lighting upgrade project ought to be conducted, how successful it can be, and how it can provide benefits far beyond an activity's border.

## Alternative Fuel, from page 2

"Currently, PWC Jacksonville maintains a fleet of 114 CNG vehicles, comprising approximately 15% of PWC's fleet," said John Joneikis, PWC Jacksonville transportation department head. "When we started the program in 1991, we had seven vehicles. We are expecting delivery of 40 additional CNG vehicles soon, making PWC Jacksonville one of the three largest CNG vehicle fleets on the East Coast."

With the Navy's growing fleet of CNG vehicles in the Jacksonville area, PWC Jacksonville recently upgraded CNG-fueling capabilities at both NAS Jacksonville and Naval Station Mayport.

Designed to benefit all Federal Government CNG vehicles, PWC Jacksonville invested \$475,000 on two new CNG pumps that will operate at each of the installation's existing gasoline/fueling service stations. The

pumps will be operated by the Navy Exchange (NEX) through a cross-service agreement.

"Twelve other Navy installations have access to fast-fill CNG," said Joneikis. "However, NAS Jacksonville and NS Mayport will be the first Navy CNG fueling stations owned by PWC and operated by the NEX."

"One of the potential advantages of NEX operating the fast-fill pumps is that PWC Transportation will receive local CNG at a competitive price and can focus on the vehicle business without investing too much time and money into fuel station operations and maintenance," said Capt. Steve Duba, PWC Jacksonville's Commanding Officer. "It's a win-win situation for both agencies."

"Also, with the growing number of personal AFV vehicles using CNG, we expect the pumps will soon be opened to Base patrons as well," added Joneikis.



# Check It Out



## Meeting(s) of The Minds

The following are upcoming national meetings, conferences, and educational opportunities we've come across that may be of interest to DON energy managers:

**Fundamentals of Energy Management**, Atlantic City, NJ, 1-2 November and 27-28 November, Orlando, FL. Course addresses energy manager training requirements specified in the Energy Policy Act. Sponsored by the U.S. Department of Energy. Info: [www.aeecenter.org](http://www.aeecenter.org) or 770-279-4385.

**Distributed Generation Opportunities and Obstacles**, 1-2 November, San Diego, CA. Issues, technology progress, end-use applications and case studies, etc. Organizer: CADER. Info: 916-654-4880.

**Electric Distribution Reliability Planning**, 9-7 November, Seattle, WA. Strategies in planning electric distribution reliability. Organizer: Infocast. Info: 818-888-4445, ext. 20.

**Exercises in Financial Analysis & Project Structuring**, 12-14 November, New York, NY. Course in mastering analytical tools and techniques used by financiers to evaluate projects for investment. Organizer: Infocast. Info: 818-888-4445, ext. 20.

**Optimizing Performance of Chilled Water and Air Distribution Systems**, 10-11 December, San Francisco, CA. HVAC system design, maintenance, performance tools. Organizer: Association of Energy Engineers. Info: 770-925-9633.

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## Watts News?

**We want to hear from you.**

*Tell us about the energy initiatives you're working on, the problems you encounter, and the solutions you discover.*

Submit article ideas, comments, or questions to:

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*Be sure to include your name and commercial phone number.*

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